

NCSER Webinar
Low-Cost Short-Duration Evaluation of Education Interventions and Special Education
Interventions Competition
QUESTIONS AND ANSWERS ONLY

Kim Sprague:

Hello, we're about to start the webinar for low cost short duration evaluation of education intervention and the evaluation of special education intervention competition. My name is Kim Sprague and I am from the National Center for Special Education Research (NCSER) and I am joined by Phill Gagne and Allen Ruby from the National Center for Education Research (NCER).

First we're going to talk about the overview the webinar. We're going to talk about IES and its mission, requirements, and purpose, and then we'll go through the Request for Application starting with the project narrative – and we'll go through each component of that narrative and other important sections of the application. Preparing and submitting an application will be the final section we will discuss. If you haven't already, please mute your phone from your end and send your questions throughout the webinar to all participants through the Q&A button and we'll get back to you.

The legislative mission of IES is to describe the conditions and progress of education in the United States, identify education practices that improve academic achievement and access to education opportunities, and evaluate the effectiveness of federal and other educational programs. In the organizational structure of IES we have a director advised by the board -- the National Board for Education Sciences - both appointed by the president and confirmed by the Senate. We have the standards and review office that – they are responsible for our independent peer review process.

We're not involved in the peer review process (NCSER nor NCER is involved) so we can help applicants throughout the process. We also have the National Center for Education Evaluation and they oversee contracted evaluations, regional education labs, the What Works Clearinghouse. Finally, you may be familiar with and National Library of Education and ERIC. We also have the National Center for Education Statistics. They run the large-scale national surveys and some international work. And then finally the two centers -- we're going to be talking today about our Low-Cost Short-Duration Evaluation of Education Interventions and Special Education Interventions Competition. We have program officers available to provide advice on our application process and substantive research because we are separate from the peer review process. Therefore, we can work very closely with grantees and applicants.

IES grant program research objectives are to develop or identify education interventions that are effective in promoting positive outcomes for students. And IES defines these as practices, programs, policies, and approaches that enhance academic achievement and can be widely deployed. We want to identify what does not work as well and thereby encourage innovation and further research and understand the processes that underlie the processes of education interventions and the variation in their effectiveness.

The objective of the research grants is to answer the questions about what works to improve outcomes so we can disseminate it (what doesn't, what works for whom and under what conditions and why does it work?) The director sets the institute's priority, which is also approved by the board. Partnerships have become important within these priorities in order to help focus research on the issues that most concern policy makers and practitioners and to help researchers communicate their findings in useful ways. Policymakers and practitioners are to have a strong role throughout these partnerships in setting the research agenda and there is to be consistent communication between the researchers and the practitioners regarding what is being found and what further research should be done.

The partnership is to evaluate a specific program or policy as we defined it of high importance to the state or local agency. So these must be rigorous evaluations of the education interventions by state or local agencies. These low cost grants are to use secondary data -- or administrative data -- and they must be of short duration. Only two year grants and the maximum grant is \$250,000.

The impetus for the low cost program was to take advantage of opportunities arising from the presence of existing data to provide useful information to education agencies in a timely manner. Often they're implementing programs and they don't have any information about how those programs are working for them. It's also to create additional opportunities for research institutions and education agencies to work together, identify strengths and weaknesses, and use a rigorous evaluation.

So, general requirements are to focus on student education outcomes. We at IES are always focused on student education outcomes and if that is not what you're focused on this isn't the correct competition for you. In 305L, that's through the National Center for Ed Research, this is -- the age is for students' pre-kindergarten through post-secondary and adult ed. However, for the National Center for Special Ed Research, a 324L, we -- you can propose to begin a program with infants and toddlers through students in grade 12 with or at risk for disability. These research -- the research must occur in an authentic study and you must evaluate these interventions using secondary data. The partnership between research institutions and state and local agencies also can include community based agencies especially for 325L and we'll talk about that a little later, disseminate findings in useful ways to inform agency decision making.

So the student populations of interest include pre-K to post-secondary and adult education. A student with a disability is defined by public law (applicable for 324L in NCSER). You can study any grade or age range within these boundaries. You can focus on, for example a fifth grade population, examine something going on at the middle school, or look at transition between high school and college. Applicants proposing to study children at-risk must present research-based evidence of an association between the risk factors in their proposed samples and the potential identification of specific disabilities. The determination that a child or student is at-risk for disabilities must be made on an individual child basis. So that may include, for example, factors used for moving children to higher tiers in a Response to Intervention model. The method to be used for determining if a child is at-risk for developing a specific disability must be made explicit in your application. Children are not at-risk for disability because they are either

from a low-income population or a minority population. So, research must address, again, education outcomes for both of our applications in NCER and NCSER. These can include academic outcomes and social and behavior competencies that support student success in school. But we also have (in 324L in NCSER) the opportunity to look at developmental, functional, and transitional outcomes for students with or at-risk for disabilities.

Measures of academic achievement are, for example, things like test scores, standardized tests, researcher developed, and end-of-course or graduation requirements and potentially grades. Measures of academic progress versus achievement may be course and grade completion, high school graduation and dropout rates, post-secondary access, and completion. Social and behavioral outcomes and skills could be related to learning strategies, goal setting, self-regulated learning, social skills, responsibility, cooperation, etc. Also attitudes and motivations or behaviors like discipline or attendance. With children with or at-risk for disabilities again, you can include these developmental, functional, and transitional outcomes, employment or post-secondary school after high school or community involvement, independent living, etc.

For infants and toddlers some of the outcomes are the same and there is a chart in 324L -- what you may be able to include in terms of an outcome. And you can also include proximal and distal outcomes in your plans. Pre-kindergarten is okay for 305L and 324L and those outcomes will be primarily focused on school readiness. And 324L includes developmental outcomes. So, grades K-12 can be included in either 305L or 324L depending on what your focus is for your population.

Additional 305L student outcomes include post-secondary outcomes -- so we usually refer to those as grade 13-16 defined as baccalaureate and sub-baccalaureate outcomes, access to, persistence in, and completion. Degree of certificate programs as well. Additional outcomes for students in developmental or remedial education programs -- you may also examine the education outcomes of achievement in reading, writing, English language proficiency and mathematics. For adult education you can also pose questions in 305L for students who are 16 years or above and outside the K-12 system. So they're expected to be in such programs as adult basic Ed, adult secondary Ed, and ESL, English-as-a second language. And high school equivalency test preparation such as the general educational development exam or GED. So, we'll talk about the education intervention that we're looking for in terms of 305L and 325L. The wide range of education curricular instruction approaches, professional development, technology and practices -- programs and policies that are implemented at the child -- student's classroom, school district or state or federal level to improve outcomes.

Any of these things can be proposed for your evaluation within in this grant application. State education agencies or local education agencies are the partners driving the research (it could be a community-based agency that also provides education services to infants and toddlers just for 324L in NCSER). The implementation of the day-to-day intervention has to be managed or overseen by that organization, the state education agency or local Ed agency or community-based group.

It's not just allowing a researcher to implement it really has to be a true local or state education partner managing that implementation. Implementation of the intervention must occur in year

one of the project. The intervention is expected to produce meaningful improvement in student Ed outcomes within a short period. So, for example, you could propose something that might change attendance policy in a school within a quarter or a semester or even a year -- but that has to be implemented within that year and be proposed to show improvements in student outcomes in a very short period of time. At a minimum the admin data or the secondary source data contains student Ed outcomes. Primary data collection is not supported by this grant. That means you can't use any funds from this grant to collect data primarily -- you can only use them to work with the district to obtain the secondary data that already exists.

The second requirement is that the application must come from a partnership that is a minimum of one research institution and one education agency, local Ed agency, or state education agency, or a community based group that's providing support -- providing an educational program. The institute does not endorse a specific model of research partnerships, however, we view research partnerships as going beyond two common forms of collaboration between research institutions and education agencies. One, the researcher's hired by an Ed agency to perform a specific research service and to report the results to the agency or two, the researcher has an initial research interest and obtains permission from the agency to carry out that research within the agency's school. Each must contribute at least one Principal Investigator or PI and may contribute other Co-PIs or Co-Investigators. So, one institution has to take the prime for the grant (so the PI of record). Decision making authority does not need to be the superintendent in terms of who is in charge at the local Ed or state education agency. It just needs to be that individual within that agency that oversees the policy program and implementation across the district or state.

You need to submit a joint letter of agreement from both the research agency and the partner state local Ed agency. It's more like a memorandum of understanding showing both sides agree to the work proposed and other members of the partnership can provide separate letters of agreement. So, for previous collaborations -- it's stronger if it includes some personnel not only in the same institution and the partners. The definition of research institution for us is broad. To be eligible to be the research institute partner you have to show that the institution has the ability to conduct this type of research and that can include non-profit or for profit organization, public and private institution and agencies, colleges and universities, or research firms. They must have the capacity to do this work.

Let's turn to the organizations that are eligible to serve as the local, state, or other education agency partner. They are all eligible as long as they are overseeing some aspect of education. So early learning, elementary, secondary, post-secondary, or adult Ed sometimes they are supported by different public organizations and are established to oversee a particular area of education and those would be eligible for this grant. For this program IES uses a broader definition than the elementary and secondary education act, which focuses on the primary agency responsible for supervision of public elementary and secondary schools. We're going to talk in a minute about how that's a little bit different for our center, National Center for Special Ed Research (NCSER), for 324L.

So, for this grant program, LEAs do not include non-public organizations that oversee or administer schools such as education management organizations or charter management

organizations. Those groups can be partners but you must include the public state or district agency that oversees the schools that are involved. There are some very small local Ed agencies and in some cases they have only one school. Those can also apply as a partner but the peer reviewers may consider that work less significant as proposed in projects involving multiple schools. Adult education providers defined in the WIOA can serve as a partner when there is no state or local education agency for adult education. So, WIOA is the Workforce Innovation and Opportunity Act and that defines organizations eligible for federal funding. The Researcher Practitioner Partnership for example in Penn State partnered with Miami-Dade public schools, Chicago Citywide Literacy Coalition and the Houston Center for Literacy to examine adult education for low skilled and immigrant workers.

One research institution and one state and local agency, that's the minimum requirement as a partnership but you may include additional partners if they will increase the quality of the research. You will want to show that the partners have similar interests. For example, several Ed agencies may face a similar problem or agencies located in a region; especially small districts may share common interests. So it may make more sense to group together. Having multiple agencies may also increase the significance of the proposed work.

State and local agencies may be useful partners as long as the education agency is also a partner. If you're looking at a specific population, let's say you wanted to look at foster children, you would have your education agency but you might also want to have your local social service agency that works with foster children involved with your project. So, one example is a project that combines a university center on children with examining the education of court involved youth. You can also include more than one research institution. Again, the point is that they have shared interests and will make unique contributions to the work. And non-research organizations are often part of the partnership for many reasons. They may be interested in the issue. They may have access to the data or be a provider of services or link to other community organizations. For example a project might seek to link early childhood education with kindergarten in terms of school readiness and use the United Way as a partner because of its role in supporting early childhood education in the district and because of its links to key stakeholders. As you have more partners though coordination becomes more difficult so it's important to address how the partnership will work together, keep in contact, and make decisions together. The one type of partnership we would not recommend is the inclusion of multiple education agencies whose only similarity is that they're worked with the same research institution rather than they share a common education issue or problem.

In terms of dissemination, the sole purpose of these grants is to aid the education agencies with decision making about the effectiveness of programs they are implementing or want to implement. So, an oral briefing on results to the agency and a written brief for non-technical audiences that have to be made free and available to the public are the dissemination requirements. Recommended dissemination might also include partner presentations and publications as well as a toolkit or a guide for other agencies on how to conduct a similar study. Now, I'm going to turn it over to Alan Ruby who's going to take you through the next slides.

Alan Ruby:

Good afternoon everyone. So I'm going to take you through a short section of slides. First I'd like to have you do is do a check of your own research idea and this grant program. So thinking about you're research idea and as Kim noted, if you're not looking at student outcomes then we're probably not the right agency to apply to. Second if you need time to build a partnership and to prepare for an evaluation we have another grant program for that. So you shouldn't come into this low cost short duration evaluation grant program thinking that you have to develop the partnership first.

You need to have that partnership at least in place enough to do the evaluations but if you need more time to build a partnership or you need more time to plan an evaluation you could consider the researcher practitioner partnerships which is under the grant 84.305H and that covers both regular education and special education student populations. If you're already to evaluate an intervention but it's not being implemented by a state or local agency or you can't evaluate it using secondary data or it won't be implemented in year one of the project or it is not expected to improve student outcomes within a fairly short period of time (a quarter to a year), this is not the right grant program for you but there are other grant programs. You can do this other work under the education research grant program or the special education research grants program under what we call goal three, efficacy and replication studies which support evaluations of this kind that do not meet these requirements.

If you need to present this to a potential partner or to someone thinking about how to organize your grant program these are three different ways of thinking about the same information. ***So, the Low-Cost Short-Duration Evaluation of Interventions grant program, what's its purpose?*** It's to promote joint evaluation research by researching institutions and state and local education agencies. Again, the education intervention has to have great importance to the education agency. This includes practitioner input into the research that provides timely, rigorous evidence so that the agency can use it to make decisions about the intervention and broadly disseminate the results so they're easily accessible to multiple audiences that include researchers, practitioners, and the public. To say "We're going to propose the intervention to be examined after the grant is received through a discussion between the partners" is not acceptable. You need to have that discussion first before you apply and your application has to be very clear about the intervention to be evaluated and how it will be evaluated.

Another way of thinking about this information is what are you going to do during the grant? What will that partnership do? Again, you've already identified an education intervention that is going to be implemented by the education agency in year one of the project. And again, that intervention is of high priority to the agency and is intended to improve student outcomes within a maximum of a full year. Then you're going to carry out that evaluation of the intervention. You're going to use a randomized controlled trial or regression discontinuity design or under the special Ed program, a single case design -- experimental single case design. The evaluation will be based primarily on secondary data. You're going to estimate the overall impact on students. And if data is available you can look at subgroup impacts for subgroups that are important to the agency. You may examine other moderators and mediators of interest such as fidelity of implementation and comparison group practices as well if such data are easily available.

A third thing to think about is what will this grant produce? The point of the grant results is to provide causal evidence (or not) of the impact of this intervention as implemented by the education agency. So causal impact and if possible, impacts for subgroups of interest. So the agency decided if they will continue using this intervention. They may ask if they are we going to scale it up or scale it out.

This grant should give them evidence to base that decision on. Or, is there further research needed? Perhaps the intervention didn't work well but there is still some sign of interest. Maybe further development is needed; modifications to the intervention or its implementation could be done to improve outcomes. But perhaps you want to do a full-scale evaluation. You noticed some things, maybe some variation in text by subgroups or concerns were about moderators or mediators or the generalizability of the intervention. Or you may just want to replicate it. You would then come back to apply for another grant for either of these two purposes evaluation and development under our regular grant programs for education or special education.

Let's now shift to your project narrative. This is really the guts of your application. This is what the peer reviewer's focus primarily on. It's a 15-page maximum and that's different from most of our other grant programs, which have a 25-page maximum. So you've got to write tighter. We are not giving you less to cover. We are keeping the same five sections you need to address -- significance, partnership, research plan, personnel, and resources. So you've got to write tighter. In the RFA we try to give you an idea of the relative balance of the sections with probably the most important section being the research plan. We recommend somewhere between five and seven pages under the research plan. Next in importance is the significance and there we recommend up to three pages. And for the partnership personnel and resources, we recommend one to two pages. Those are recommendations. I want to note that those are not requirements. In the request for application we list requirements, which you must meet in order to have your application accepted for peer review. And then we list recommendations, which is what we ask the peer reviewers to look at and base their reviews on. But they're not going to be looking at page numbers of each section. We give that information just to try to give you an idea of the balance we're looking for.

So let's move on to the significance section. Which the overall question here is why is this evaluation important enough to do? And part of that has to be - what are we evaluating? I have to describe the education intervention in enough detail so that the peer reviewers understand what is being evaluated. So before you even get to that you may want to say why do we have this intervention? What is the education problem or issue that the state of local education agency is trying to address with this intervention? You may want to note that this is a problem being faced by other state or local education agencies. We ask the peer reviewers to consider that as of secondary importance. Of primary importance is why do this, what are they facing? They are trying or they're tried this intervention to address this problem. So you need to describe what the intervention is. What are its components? What is it made of? Then you want to discuss what the rationale is that this intervention can address the problem. How can this intervention improve student outcomes in a relatively short period of time (a quarter to a full year). You may want to include a Theory of Change. If you want to you can put a logic model in there. Again, it makes it easier to have a schematic of how this intervention is supposed to work going through what its components are, what population is targeted, what intermediate outcomes are expected,

and then what final student outcomes are expected.

You may want to argue that the intervention is different from the status quo being tried and the differences are large enough to expect it to have an impact on student outcomes. And you may want to include any other empirical data that could be used to support this rationale for implementing this intervention.

Once you know what the intervention is you need to explain a bit more about how it's being implemented. So first of all, as Kim pointed out, it has to be an intervention implemented by the education agency. So you want to make that very clear. You don't want to have a peer reviewer challenge it and say, this sounds like something a researcher is implementing in a district that's happy to try it out. You really want to make it clear that the agency has adopted this intervention, is implementing it, and wants to be the one to make a decision on its future use. Show that there's adequate funding available (outside of this grant) for the implementation and that implementation will occur during the year one of the project at a level expected to impact student outcomes. Now, we did mention if it had been implemented in the past you can use data from past years in your evaluation. That's fine. But the intervention has to continue on into the first year of the project and be implemented during that year as well for two reasons. One, that means you have the most up-to-date form of intervention. Interventions change over time. And two, that shows that the agency is still highly committed to the intervention. Implementing in year one ensures that your information on the evaluation will be of use in future -- in future dissemination.

None of this says the intervention cannot be implemented by the agency in year two or further. Hopefully the agency would intend to keep using it if the findings are supportive of it (that is, shows it is effective). Then you want to discuss the sources of the secondary data to be used in the evaluation, how is data collected, is this administrative data that the district or the state normally collects? Is it being collected by another project or some other organization? You're going to have access to it as secondary data and also very important is that the researchers have a way of obtaining this data by the first quarter of year two of the project. This allows them to fulfill the requirements to conduct the analysis during year two and provide the findings by the end of the project -- by the end of the year two. If this is an intervention that's going to be started up for the first time in year one, you want to have some additional evidence that it will actually be done. You may need some authority to say yes, this intervention is not only planned to be carried out but *will be* carried out next year.

So let's move on to the partnership. That's the second section. Here you are justifying this is a partnership. One of the primary questions asked by the peer reviewers is, "Is this a partnership or is this just the district hiring someone to do an evaluation or a research firm doing an evaluation of something they're interested in that is being allowed by the district." So you really want to have a true partnership here. The work may be differentiated but there's ongoing connection between the partners and discussion.

So again, describing the partners, the research institute and the education agency and often working together for the first time on this issue. And so it's an important to show that they all know what's going on and people are involved. Other members of the partnership, why are they

interested? What are the common interests and benefits from working together? What was the process through which the partners determined the specific intervention to evaluate? And very important -- the data sharing agreement. How will this data be obtained and provided to the researcher in time for analysis for the first quarter of the second year. The partnership is expected to work together over the full two years to communicate on a regular basis during this period to have input -- both sides -- on how the research is going. What should be next steps after the project ends? So I'm going to turn over the research plan now to Phill and he'll take you through those slides.

Phil Gagne:

Hi, I'm Phil. I'm going to talk about the research plan and the personnel section and the resources section. So for the research plan -- state clearly what the research questions are. That's a good way of making sure that the purpose of the study is made clear. Make sure you state those -- specifically what they are. Describe the sample and the setting. So, define the population of interest and how your sample and the sampling procedures will allow you to make inferences to that population. State clearly any exclusion of inclusion rules along with the justification for having those restrictions. It's not to say that we discourage those, just make it clear why you are using them. State any strategies that you're going to use to increase participation and to reduce attrition. Strategies to reduce attrition do not necessarily result in none. Don't say "we have a really good history of having low attrition." That is not a plan. So, make sure that you describe how you're going to go about reducing and dealing with attrition. You need to also describe what you're going to do about missing data because there will be some. Even with the best laid plans to prevent attrition, there is missing data.

Then describe the setting and the implications for the generalizability of the study. For example, if you're going to run the intervention in a classroom that has an unusual combination of students or something's uncommon about the environment then that may not generalize as well as if you were in a standard classroom. So, make clear what effect the setting may have on the generalizability of the study and the generalizability or the utility of the intervention. Discuss how your design will support causal inferences and identify potential threats to internal validity. So one such thing is to discuss how the baseline equivalence will be determined and how you will analyze that. So, don't just say "we're going to look at it." Run a test. Discuss the possibility of bias from overall attrition so from the study and any differential attrition that you see between the groups. Again, saying that you'll minimize attrition is not a plan. What does it really mean if there is differential attrition and what are you going to do about it?

For 305L you're required to use a randomized controlled trial (RCT) or regression discontinuity design (RDD). For the regression discontinuity design, it can be a sharp design or a fuzzy design. It is not okay to use any quasi-experimental designs. So basically the study has to have the potential to meet the WWC evidence standards without reservations (quasi-experimental designs don't). For 324L you're required to use RCT, RDD, or single-case experimental design that will meet the What Works Clearinghouse or WWC standards.

If you're going to do randomized controlled trial, note the unit of randomization and justify your choice for that -- just note whether you're going to randomize students or classrooms or schools and just make a note of that and describe why. Describe the process for the random assignments

and making sure that that random assignment is not spoiled.

There are different approaches to RCTs, so make sure that you address any potential issues. So, for example, if the entire population is going to be involved in the study, make sure you talk about treatment fidelity because when you have groups who are unwilling, sometimes treatment fidelity falls apart. Treatment fidelity is an issue overall, but it's particularly an issue when you've got a whole bunch of people in the study who may or may not want to be there.

For volunteer participants -- make sure you've got a good comparison group because if you've got people signed up to take the intervention, what are you going to do as far as who the comparison group is? You've got to take into account that volunteers could be different than the population at large. If you're going to run a lottery, what are you going to do about attrition of non-accepted parties? So if there are people who are only participating if they win the lottery, and then they go away, what are you going to do -- because that's clearly a different kind of group. If you're going to do a staggered roll-out, note that the design or the performance period for these grants is only two years. So you don't have a lot of time for rolling out. Note that it's only a two-year span. Obviously, if the study uses data from previous years, that can mitigate some of the issue. If you're going to test variations of the program or a policy, discuss the issue of overall significance of part of the policy and variations of it. So again, these are just different issues that could come up, your results may vary.

For regression discontinuity designs, the appropriateness of the assignment variable is obviously very important. What variable you choose to use as the cut score to determine the sort of the above and below group. You have to be able to show that there is a true discontinuity in the data. It's okay to use a sharp cut point versus a fuzzy cut point, that's fine, as long as there is a demonstrable discontinuity there. Discuss the possibility of manipulation of a design variable and what steps you'll take in terms of analyses to determine whether there has been any manipulation. Discuss sensitivity analyses that you'll do to assess the influence of any procedural or analytic decisions that are made on the results of the study.

So for single-case experimental design which, again, can only be done for a 324L, justify the use of the single-case experimental design as opposed to an RCT or an RDD. Which, again, we're open to you doing that, just make sure it's clear why you would be doing a single-case instead of an RCT or an RDD. Such as, if you're focusing on students with a low incidence disability, you'll have a hard time coming up with a sufficient population to make an RCT or RDD, so that's fairly a good reason to go forward with a single-case. Describe the repeated systemic measurements of the dependent variable before, during, and after the action manipulation of the independent variable or the intervention. So make sure the design is something that will actually support a causal inference and is going to involve measuring all those occasions; multiple times. Include outcome measures that are not strictly aligned with the intervention. These are measures that should be influenced by the intervention, but not outcomes that will not likely move in or demonstrate the effectiveness of the intervention. Describe also any quantitative analytic techniques that might be used on the single-case data -- in addition to visual analysis -- for analyzing the data that you have. For example, you might do between-case effect sized calculations. In some cases you may have enough data to support doing multi-level growth models. So any additional techniques that you're going to use beyond the visual analysis,

describe those.

Now, statistical power - make sure you provide a detailed description of the power analysis that you use. Justify the method that you use; justify the parameters that you use, and any assumptions that you make. State also whatever software that you use to do the calculation. Don't just say, "We used a common analysis -- or common software." Say which one you used. Provide the power for the primary analyses and any important sub-group analyses that you intend to do. The funds for this grant are not high, so we don't want to get in the business of funding a primary analysis and then a bunch of exploratory moderator analyses that don't have sufficient power to give us a reasonable answer. So make clear what power you have, and what you're powering for and that you have sufficient power to do whatever analysis you want to do. Along with identifying the minimum detectable effect for your analysis, justify that it is a reasonable effect to be aiming for and describe the practical meaning of it. Ultimately, reviewers should be able to check the power calculations that you provide. So you should be able to provide sufficient detail. And, again, name the software so, if a reviewer wanted to, the power analysis you describe could be run and the same result would be found.

Outcome measure - student education outcome measures must be relevant to states, and districts, and schools. So we've talked a little bit about that, but it's worth reiterating here. These can be found in administrative data, or other secondary data. So they're out there. Discuss reliability, validity, and appropriateness of the measures and of the variables that you're using. The reviewers are going to want to see that these are good choices. Some outcome data must be collected during year one. So, again, as we've discussed, additional data from previous years can be included. Maybe you will have a partnership with the district that lasts long beyond the performance period of this grant, but the requirement is that the intervention must be going on until you collect data during year one of the project. And then, make sure that you clearly link measures to the rationale for the intervention. Include a rationale for why you chose the particular measures that you've chosen. Optional measures - again, if you happen to have them available, you can include them as available in secondary data or other things the district or state agency may want to know and so use an additional measure to get other data. You may be only measuring intermediate outcomes. Moderators may be influential on the impact of the intervention -- that would be something to consider. Mediators, which basically are the same thing as intermediate outcomes, could be included, and any data on fidelity of implementation would certainly be quite welcome.

Comparison group practice should be described where possible. Some studies don't pay attention to the fact that the comparison group -- while they're not necessarily getting the official intervention -- may still be doing things that will be influential regarding the outcome variable. You don't have to have these data about what the comparison group is doing, but if you have them, they are good to include.

For your analysis plan, detail the impact analysis and make clear what analysis you're going to use to answer your research question. If you have multiple questions, state which analyses are going to be used for each question. Show that the analyses are based on the design. In other words, that it makes sense -- given the design -- to run the analysis that you're running. Address clustering of students in classrooms and potentially in schools. So, in other words, if you have

multi-level data, then run a multi-level analysis or provide a really good reason for not running a multi-level analysis.

As I mentioned before, address missing data. It's not a plan to say, "We're not going to have any." We want to know what the missing data imputation plan is going to be. Obviously, it is nice to have as little missing data as possible, but have a plan for addressing missing data. If multiple data sets are to be linked, detail how this will be done because not all data sets merge nicely; in fact most don't. So yours are coming from the same school district, if you're going to be linking multiple data sets, be clear about how you'll be able to do that. And it will help to explain that in sufficient detail that the reviewers can see that you have a good sense of what to do with them. Describe any other analyses that you're going to do. So, again, subgroup or moderator analyses, mediator analyses, and fidelity of implementation analyses.

So that wraps up the "research plan" section, and now I'm going to talk about "personnel and resources." Identify all key personnel on the project team. So the PI from the research institution should have previous experience carrying out the proposed evaluation design; be it randomized control trial or regression discontinuity or single-case design. The PI from the education agency should be someone who has authority over program decisions. That is, this person can influence whether schools use an intervention and will be able to assert that there are going to be changes, if the data suggests that the intervention is not working or would be better if it were used in a different way. So this has to be someone of some authority at the education agency. And then also describe any other key personnel beyond just the required PI from the research partner and the PI from the education partner.

Describe clearly the roles and responsibilities on the project of all the personnel. Make it clear who is going to do what. Don't just assume that the reviewers are going to be able to tell by a person's title what someone is capable of and, therefore, what that person will be doing on the grant. Just make that clear. Indicate the qualifications of those individuals for the responsibilities they will have. You don't want the reviewers trying to figure out whether a person's qualified. State clearly, "This person has done x number of years of work on x," or something to make clear they have the necessary expertise. State specifically the percentage FTE each person has on the project. So, how of their time is being paid for by the grant. And then indicate any past success at working in similar partnerships. Mention the PI's qualifications for managing a grant of this type like other similar partnership grants using data from schools, causal design, and analyses.

Ensure objectivity of the evaluation. We do not want the district to say, "We are using this intervention and now we're going to bring the creator of this intervention in and do the evaluation for us." To IES and to most of our reviewers this would like a clear lack of objectivity. So make sure you describe how you're going to make clear that there's no conflict of interest as far as people running the intervention and running the research (random assignment, analyses, and gathering data).

Describe the institutional resources of all the institutions in the partnership and how these resources will contribute to building partnership and to conducting the research. So basic institutional capacity to manage the grant; for some institutions that's a little more obvious than

for others. Make it clear what resources are available at the partner institution to support the project. So, what will the education agency be bringing to this that can help the evaluation move along? Plan to acquire any major resources not yet in hand such as a secondary data that you may not yet have. Be careful about the extent of such plans because you don't want to say "we have a bunch of ideas for things we want to do if we have the money." So most of it should be something you can do. Of course, there are occasionally things that are not yet in hand that you can just have Letters of Agreement for. And speaking of Letters of Agreement, you need to include the joint Letter of Agreement by the partners -- that's noted in Appendix D -- and a Letter of Agreement from the education agency indicating they will provide administrative data. So to the extent that you're going to need administrative data, there needs to be a Letter of Agreement saying that you will have access to them or otherwise demonstrating that you currently have access to them.

The goal of the dissemination of results is that they are useful to the education partner because essentially that's why they want this research to move forward. And it could be that the results will be useful for other education agencies. Perhaps at the state level; if you're working with local education agencies, or other local agencies around the state or even in other states. And this holds for findings indicating the intervention is useful or not -- because a result saying that the intervention is not helpful is still important information. If you complete a good study, and it shows no impact on the intervention, that's good information. People need to know that. Describe your capacity and resources to disseminate findings. There is a required oral briefing for the agency and a written brief freely available to the public. So you can talk about your abilities to create those; to disseminate those. Also include any dissemination you intend to provide to other audiences such as researchers, policy makers, and practitioners and eventually even students and their families, or the public at large.

Alan's going to talk to you now about appendices.

Alan Ruby:

And the budget. These are not part of your project narrative -- but they're very helpful in supporting your project narrative. So it's important to use them. Appendix A is very important if you have submitted before, because this is where you have three pages to discuss how you responded to the reviewer comments. If you haven't submitted previously, you wouldn't need this appendix. But if you do have a resubmission, you must have this appendix. On the other hand, if you have changed your application so much from a previous one that you think it's really a new one, here's the place also where you can say that the previous reviews don't apply anymore because changes were made. Otherwise you would indicate what was changed that is applicable.

Appendix B is optional. This can include any materials that relate to the evaluation and the partnership itself. So you may put in figures, charts, or tables that supplement the project narrative. This can include time lines, a logic model, examples of instruments, etc. There might be examples of the administrative data you're drawing from. So if you're drawing from some sort of form that's submitted or some sort of data set, you could provide that information here. But do not include any narrative text. And the other thing I want to point out here is, this is shorter in terms of page limits than our regular grants program; the page limit for this application

is five pages.

Appendix C would include materials that describe the intervention. So if it's the curriculum, you may show examples of curriculum materials. You may have examples of documents used in implementing or training. If there are assessment items -- tests of the intervention -- you may include those items here. And so the difference between this appendix and Appendix B is that the latter includes materials relating to your evaluation of the intervention. Appendix C includes materials that apply to the intervention being evaluated. So that's how you decide where to put your materials. Again, this is a shorter page limit than we have in the regular grants program. Again, please do not include narrative text here.

Appendix D has no page limits. This is the appendix where you show that folks are willing to take part in this grant. So this is where you would put your joint Letter of Agreement between the partners documenting their participation and cooperation in the partnerships, setting out their roles and responsibilities under that project. In a sense, this is almost a mini memorandum of understanding or a memorandum of agreement saying, "We're both going to be involved in this project, here's what we're going to do on it. Here's how we're going to do things and here's what's going to come from it. And we are partners for the next two years." If there's another organization that's been charged with the agencies data in some states for a the separate data warehouse, or it could be obtaining data from a third party, you should have a letter from that group saying, "Yes, if you get this grant, we will provide the data as described in the application as necessary to do the evaluation." This is very important to these grants because you only have two years. And we want the results out in two years. So if there's a state agency or another agency involved that normally takes one year, one and a half years to provide the data, again, this is probably not the best grant program for you. That is, you may get the grant, but if you can't get the data from year one, the grant may end.

Optional Letters of Agreement. You should have letters from any organization taking part. Letters from consultants of schools; this is a way for reviewers to quickly evaluate the agreement of all involved. The more you can show that everybody who's involved wants to take part, the more likely the peer reviewers will believe that this work can be carried out. Now, there's a cut-off there. If you're working in 40 schools, getting 40 letters from these schools may be just too costly or too time consuming to obtain. But on the other hand, if you could say, "We took a sample of five schools, all five gave us letters," that's a nice sign that you will probably get all schools to be part of this study.

The maximum project length is two years. The maximum award is \$250,000. The key point here: none of the funding can be used for implementing the intervention. That's not acceptable. Funds can only be used for evaluation. The expectation is that the state or local agency is funding the intervention and implementation itself; either using its own funds or perhaps using funds from another organization. But this grant is not to support training or implementation of the intervention. Again, you don't need to apply for the maximum; there may be smaller projects you want to do that can be done for much less than 250,000.

A detailed budget form and a budget narrative are required. These things link where the money's being spent to the actual activities and personnel that you've described in the project

narrative. And, in addition, if there's a sub-award going to the partner, there needs to be a sub-award budget and a sub-award budget narrative describing how that budget is being used. In the main award, you'd have a line item "Sub-award," and then there'd be a separate budget describing that sub-award.

Now a bit of information on preparing your application: the date, some sources of information, and the review process. Applications are due August 4th, 2016 at 4:30 p.m., no seconds. That's serious, there's a computer stamp if you come in at 4:30 and one second, you'll be marked late, and you won't be accepted for review. So we really, really, really, ask that you submit days early for two reasons. One is, on August 4th, and usually August 3d, the server is sometimes overwhelmed and moves much more slowly. If you try to submit, you may be held up because of how many others are submitting at that time, and your application will then be late. Two, it takes a day or two for the system to check for errors in your application. And you will get an email back saying your application was not accepted because of error. You want to submit days early so that if you get that email you'll have time to resubmit after fixing the error in your application.

The letter of intent due date has passed, but that is a request and not a requirement. So you can still submit on to the Program Officers. We do ask that you send a description of your proposed research to one of us so we can at least comment on, "Is it appropriate for this grant program? Or is there another grant program it's more appropriate for?" The application package has been posted, that's at www.grants.gov and you can download it from there. You can search for, "84.305L" and you'll get to that; you'll get to a list of 84.305 grants and you'll pick the first one which is "L" and then you can download the application. You can start the grant anywhere from July 1st to September 1st. We ask, again, think about that. Sometimes July 1st is not the best start date; maybe you're -- the district partner is out for July in some places. And so starting a month early gains you nothing; you may want to start a little later. On the other hand, if you're a district and the research institution are ready to go July 1st, that's fine. Pick that as your start date and just get ready to go.

Just some information sources where you can get the requests for applications. We have abstracts of projects up, but I have to say, this is only the second time we're competing this grant program. So -- and the first time was last -- in January, those grants have not been awarded yet. So we can't even talk about grants that have been awarded under the grant programs, so there are no abstracts for this type of grant available now. The application package, I mentioned at www.grants.gov, the three of our emails in which our grant programs were responsible for.

A note on the peer review, as mentioned by Kim, it's run by a separate office, the Standards and Review Office, they'll do an initial compliance screening. So all those formatting requirements I mentioned; 15 pages for your project narrative, you know, no using -- no appendices of five pages, those have to be met in order to be accepted for. And then, all the requirements that we've mentioned. And there's a response to the screening for the requirements we discussed; that you have to meet the requirements to be accepted for panel review. If accepted, then you're assigned to the review panel. Last year we had two review panels that were specifically for this grant program; that may or may not be the case this time. Two reviewers -- sometimes three -- review each grant application. One had a substantive expertise in the area being studied. And

the other was an expert in the method being proposed. And if they scored it high enough, the application was then discussed by the full panel. So in that case you're writing both for a specialist in your area and method, as well as generalists to your area and method to sit on the panel. So you can't be -- we would say you can't be too targeted to the specialists. So you have to avoid jargon, you have to be a little more detailed or explicit about what you're doing, and you might expect for a specialist in your area. But the panel will contain the experts in your methods, so you have to be clear on the methods, as well. The panel then scores each section overall and then gives an overall score for the whole application and that overall score is used in the decision to give fundings or not.

So we now have an online application notification system. So you'll get an email after you apply; if you're not on that already, you can find out how to join that. Then, after the peer review is done, you'll get an email notification that information is available. First you may see the actual score, later you may see in the summary statements from the reviewers, and later you may see whether or not a grant has been awarded. Many of our grants are resubmissions. Most grants are made a second or third time, sometimes the fourth time they're resubmitted. There is no limit on resubmissions at this time. So we do think that if you get a good review that says, "It's an interesting area, but has the following issues with it," you should talk with us about how to -- about resubmitting, do a follow-up, and then hopefully next year we'll re-compete this competition and you can resubmit at that time. But, just once again, here's our contact information, and this is the last slide of the webinar. What we'll do now is we'll just hold on here a few minutes more if you have any questions, please send them in. If you don't, thank you very much for attending. And certainly contact us later, you know, over the next few weeks as you're writing your application, if you have further questions or would like our comments on your research idea. So from the three of us, thank you for your time today.

[end of transcript]